Listing of Claims:

The following listing of claims will replace all prior versions and listings of claims in the application.

1. (original) A genetically modified plant or part thereof comprising daidzein and/or derivatives thereof, wherein said plant or part thereof is active in flavonol and anthocyanin biosynthesis and comprises one or more nucleotide sequences encoding chalcone reductase and one or more nucleotide sequences encoding isoflavone synthase.

2. (original) A genetically modified plant or part thereof according to claim 1, further comprising one or more nucleotide sequences encoding a chalcone isomerase capable of catalysing the conversion of 4,2'4'-trihydroxchalcone to 7,4'-dihydroxyflavanone.

Claims 3-21 (cancelled)

22. (previously presented) A genetically modified plant or part thereof according to claim 1 wherein said one or more nucleotide sequences comprise (i) a nucleotide sequence shown in SEQ ID NO: 1, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20 minutes and encodes a chalcone reductase; and (ii) a nucleotide sequence shown in SEQ ID NO: 3, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20 minutes and encodes an isoflavone synthase.

23. (previously presented) A genetically modified plant or part thereof according to claim 2 wherein said one or more nucleotide sequences comprises a nucleotide sequence as shown in SEQ ID NO: 5, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20 minutes and encodes a chalcone isomerase capable of catalyzing the conversion of 4,2',4'-trihydroxchalcone to 7,4'-dihydroxyflavanone.

24. (previously presented) A genetically modified plant or part thereof according claim 22 wherein said one or more nucleotide sequences further comprises a nucleotide sequence as shown in SEQ ID NO: 5, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20

minutes.

25. (previously presented) A genetically modified plant or part thereof according to claim 1 wherein said plant or part thereof is selected from the group consisting of tobacco, *Lactuca sp.*, broccoli, asparagus, red cabbage, potato, spinach, rhubarb, red onion, shallot, aubergine, radish, Swiss chard, purple basil, watermelon and berries.

26. (previously presented) An extract of a plant according to claim 1 wherein said extract comprises daidzein and/or derivatives thereof.

27. (previously presented) A nutritional supplement comprising an extract according to claim 26.

28. (previously presented) A food product comprising a genetically modified plant or part thereof according to claim 1.

29. (previously presented) A food product according to claim 28 wherein said food product is selected from the group consisting of packaged mixed salad, soup, spread, sauce, fruit bar and ice cream.

30. (previously presented) A method for the production of a food product or nutritional supplement comprising culturing the genetically modified plant or part thereof according to claim 1 under conditions suitable for expression of a chalcone reductase or isoflavone synthase.

31. (previously presented) A method for the production of a food product or nutritional supplement comprising culturing the genetically modified plant or part thereof according to claim 26 under conditions suitable for expression of a chalcone reductase or isoflavone synthase.

32. (previously presented) A method of treating or preventing in an individual one or more conditions selected from the group consisting of sunlight induced skin damage, skin wrinkling, loss of skin sensitivity, loss of skin firmness, acne, poor hair condition and baldness, which method comprises administering to the individual an extract according to claim 26.

33. (previously presented) A method of treating or preventing in an individual one or more conditions selected from the group consisting of sunlight induced skin damage, skin wrinkling, loss of skin sensitivity, loss of skin firmness, acne, poor hair condition and baldness, which method comprises administering to the individual a genetically modified plant or part thereof according to claim 1.

34. (previously presented) A process for increasing the content of daidzein and/or derivatives thereof in a plant or part thereof, wherein said process comprises the steps:

(i) selecting a non-isoflavone producing plant wherein said plant or part thereof is active in anthocyanin and flavonol biosynthesis;

(ii) genetically modifying said plant to increase the activity of chalcone reductase and isoflavone synthase in said plant or part thereof.

35. (previously presented) A process according to claim 34, wherein said process further comprises genetically modifying said plant or part thereof to increase the activity of a chalcone isomerase capable of catalyzing the conversion of 4,2',4'-trihydroxchalcone to 7,4'-dihydroxyflavanone.

36. (previously presented) A process according to claim 33, wherein said plant is genetically modified to incorporate into the genome of the plant (i) a nucleotide sequence shown in SEQ ID NO: 1, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20 minutes and encodes a chalcone reductase; and (ii) a nucleotide sequence shown in SEQ ID NO: 3, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20 minutes and encodes an isoflavone synthase.

37. (previously presented) A process according to claim 35, wherein said plant is genetically modified to incorporate into the genome of the plant a nucleotide sequence as shown in SEQ ID NO: 5, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20 minutes and encodes a chalcone isomerase capable of catalyzing the conversion of 4,2',4'-trihydroxchalcone to 7,4'-dihydroxyflavanone.

38. (previously presented) A process according to claim 36, said plant is genetically modified to incorporate into the genome of the plant a nucleotide sequence as shown into the genome of the plant a

nucleotide sequence as shown in SEQ ID NO: 5, or a sequence which hybridizes thereto under conditions of 1x SSC, 0.1% SDS, 25°C for 20 minutes and encodes a chalcone isomerase capable of catalyzing the conversion of 4,2',4'-trihydroxchalcone to 7,4'-dihydroxyflavanone.

39. (previously presented) A process according to claim 34 wherein said plant is selected from the group consisting of tobacco, *Lactuca sp.*, broccoli, asparagus, red cabbage, potato, spinach, rhubarb, red onion, shallot, aubergine, radish, Swiss chard, purple basil, watermelon and berries.